

CLAIMS

What is claimed is:

- 1 1. A circuit, comprising:
2 a first current limiting circuit coupled between a selector terminal and a
3 first voltage bus, the first current limiting circuit adapted to vary a current limit
4 out of the selector terminal in response to a voltage on the selector terminal; and
5 a second current limiting circuit coupled between the selector terminal and
6 a second voltage bus, the second current limiting circuit adapted to vary a current
7 limit into the selector terminal in response to the voltage on the selector terminal.
- 1 2. The circuit of claim 1 further comprising a plurality of voltage
2 comparators coupled to the selector terminal.
- 1 3. The circuit of claim 2 further comprising decoder circuit coupled to
2 the plurality of voltage comparators.
- 1 4. The circuit of claim 1 wherein the first current limiting circuit
2 includes a first switch and a first variable current source coupled between the first
3 voltage bus the selector terminal.

1 5. The circuit of claim 4 wherein the first switch is adapted to
2 conduct when the voltage on the selector terminal is below a first threshold
3 voltage, wherein the first switch is adapted not to conduct when the voltage on the
4 selector terminal is above a second threshold voltage.

1 6. The circuit of claim 5 wherein the second current limiting circuit
2 includes a second switch and a second variable current source coupled between
3 the selector terminal and the second voltage bus.

1 7. The circuit of claim 6 wherein the second switch is adapted to
2 conduct when the voltage on the selector terminal is above a third threshold
3 voltage, wherein the second switch is adapted not to conduct when the voltage on
4 the selector terminal is below a fourth threshold voltage.

1 8. The circuit of claim 7 wherein the first current limiting circuit is
2 adapted to vary the current limit out of the selector terminal to a first current limit
3 when the voltage on the selector terminal is below a fifth threshold voltage,
4 wherein the first current limiting circuit is adapted to vary the current limit out of
5 the selector terminal to a second current limit when the voltage on the selector
6 terminal is above a sixth threshold voltage.

1 9. The circuit of claim 8 wherein the second current limiting circuit is
2 adapted to vary the current limit into the selector terminal to a third current limit
3 when the voltage on the selector terminal is above a seventh threshold voltage,
4 wherein the second current limiting circuit is adapted to vary the current limit into
5 the selector terminal to a fourth current limit when the voltage on the selector
6 terminal is below an eighth threshold voltage.

1 10. The circuit of claim 7 wherein the first threshold voltage and the
2 second threshold voltage are less than the third threshold voltage and the fourth
3 threshold voltage.

1 11. The circuit of claim 8 wherein the fifth threshold voltage and the
2 sixth threshold voltage are lower than the first threshold voltage and the second
3 threshold voltage.

1 12. The circuit of claim 9 wherein the seventh threshold voltage and
2 the eighth threshold voltage are higher than the third threshold voltage and the
3 fourth threshold voltage.

1 13. The circuit of claim 8 wherein the first current limit is less than the
2 second current limit.

1 14. The circuit of claim 9 wherein the third current limit is less than
2 the fourth current limit.

1 15. The circuit of claim 1 wherein the circuit is included in an
2 integrated circuit device.

1 16. The circuit of claim 15 wherein the integrated circuit device is a
2 controller in a switching power supply.